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L Number	Hits	Search Text	DB	Time stamp
1	125	705/33, 34.ccls. and (duplicate near2 (record\$1 or account\$1))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/09/20 09:05
3	0	(705/33, 34.ccls. and (duplicate near2 (record\$1 or account\$1))) and ((compar\$5 near3 (index\$2 or account\$1)) with replac\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/09/20 09:03
2	35	(705/33, 34.ccls. and (duplicate near2 (record\$1 or account\$1))) and compar\$5 and replac\$3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/09/20 09:04
4	0	705/\$.ab,clm,ab. and (duplicate near2 (record\$1 or account\$1))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/09/20 09:05
5	0	705/ab,clm,ab.ccls. and (duplicate near2 (record\$1 or account\$1))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/09/20 09:06
6	0	705/ab,clm,ab. and (duplicate near2 (record\$1 or account\$1))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/09/20 09:13
7	0	705/ab,clm,ab.ccls. and (duplicate near2 (record\$1 or account\$1))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/09/20 09:13
8	0	705/ab,clm,ti.ccls. and (duplicate near2 (record\$1 or account\$1))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/09/20 09:13
9	0	705/ab,ti.ccls. and (duplicate near2 (record\$1 or account\$1))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/09/20 09:13
10	146	705/\$.ccls.. and (duplicate near2 (record\$1 or account\$1))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/09/20 09:14

11	146	705/\$.ccls. and (duplicate near2 (record\$1 or account\$1))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/09/20 09:14
12	4	705/\$.ccls. and ((duplicate near2 (record\$1 or account\$1)) same replac\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/09/20 09:14



# STIC Search Report

## EIC 2100

**STIC Database Tracking Number: 132943**

**TO: Baoquoc To**  
**Location:**  
**Art Unit : 2172**  
**Monday, September 20, 2004**

**Case Serial Number: 09/832572**

**From: David Holloway**  
**Location: EIC 2100**  
**PK2-4B30**  
**Phone: 308-7794**

**david.holloway@uspto.gov**

### Search Notes

Dear Examiner To,

Attached please find your search results for above-referenced case.  
Please contact me if you have any questions or would like a re-focused search.

David



# STIC EIC 2100

## Search Request Form

Today's Date:

09/20/04

What date would you like to use to limit the search?

Priority Date:

04/01/2001

Other:

Name ID, BAO QUOC

AU 2172 Examiner # Bass 78889

Room # 4A42 Phone 3051949

Serial # 09/832,572

Format for Search Results (Circle One):

☒ PAPER

☐ DISK

☐ EMAIL

Where have you searched so far?

☒ USP

☒ DWPI

☒ EPO

☒ IPO

☒ ACM

☐ IBM TDB

☒ IEEE

☐ INSPEC

☐ SPI

☐ Other

Is this a "Fast & Focused" Search Request? (Circle One) ☒ YES ☐ NO

A "Fast & Focused" Search is completed in 2-3 hours (maximum). The search must be on a very specific topic and meet certain criteria. The criteria are posted in EIC2100 and on the EIC2100 NPL Web Page at <http://ptoweb/patents/stic/stic-tc2100.htm>.

What is the topic, novelty, motivation, utility, or other specific details defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, definitions, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract, background, brief summary, pertinent claims and any citations of relevant art you have found.

- identify duplicate and eliminating duplicate
- if the field is null enter date
- \* Claims 1, 6, 7

STIC Searcher David Hollaway

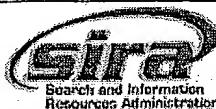
Phone

308-7794

Date picked up 9-20-04

Date Completed

9-20-04



Set	Items	Description
S1	957749	DATABASE? OR DATABANK? OR DB OR DBMS OR RDB OR OODB OR DBS OR DATA() (BASE? OR BANK?)
S2	2265367	RECORD? OR DOCUMENT? OR INVOICE? OR BILL OR BILLS OR RECEIPT?
S3	2877079	DUPLICATE OR IDENTICAL OR DUPLICATES OR SAME OR EQUIVALENT
S4	2318766	REMOVE? OR REPLAC? OR SUBSTITUT? OR SWITCH? OR SWAP?
S5	5820849	DATE OR DATES OR DATESTAMP? OR INDICIA? OR TIMESTAMP? OR - TIME OR CALENDAR?
S6	319942	BLANK? OR NULL OR EMPTY OR VOID?
S7	5425155	MATCH? OR COMPARE? OR EQUAL OR EQUIVALENT?
S8	18621	S2(2N) (S3 OR S7)
S9	1674	S1 AND S8
S10	90	S4 AND S9
S11	942	S1 AND S5 AND S6
S12	13473	S5(2N) (INSERT? OR FILL OR FEED OR POPULAT?)
S13	18	S11 AND S12
S14	60	S12(5N) S6
S15	1584109	BLEND OR BLENDS OR BLENDING OR MERGE? OR MERGING OR COMBINE OR COMBINES OR COMBINING OR APPEND? OR MIX OR UPDAT? OR UP()- (DATE OR DATING OR DATES)
S16	93	S11 AND S15
S17	1	S14 AND S15
S18	165	S10 OR S13 OR S14 OR S17
S19	110	RD (unique items)
S20	88	S19 NOT PY>2001
S21	86	S20 NOT PD>20010412
S22	10	S21 AND S15
S23	108	S13 OR S10
S24	77	RD (unique items)
S25	63	S24 NOT PY>2001
S26	61	S25 NOT PD>20010412
S27	52	S26 NOT S22
File	8: Ei Compendex(R) 1970-2004/Sep W2	(c) 2004 Elsevier Eng. Info. Inc.
File	35: Dissertation Abs Online 1861-2004/Aug	(c) 2004 ProQuest Info&Learning
File	202: Info. Sci. & Tech. Abs. 1966-2004/Sep 09	(c) 2004 EBSCO Publishing
File	65: Inside Conferences 1993-2004/Sep W3	(c) 2004 BLDSC all rts. reserv.
File	2: INSPEC 1969-2004/Sep W2	(c) 2004 Institution of Electrical Engineers
File	94: JICST-EPlus 1985-2004/Aug W4	(c) 2004 Japan Science and Tech Corp(JST)
File	111: TGG Natl. Newspaper Index(SM) 1979-2004/Sep 20	(c) 2004 The Gale Group
File	233: Internet & Personal Comp. Abs. 1981-2003/Sep	(c) 2003 EBSCO Pub.
File	6: NTIS 1964-2004/Sep W2	(c) 2004 NTIS, Intl Cpyrght All Rights Res
File	144: Pascal 1973-2004/Sep W2	(c) 2004 INIST/CNRS
File	34: SciSearch(R) Cited Ref Sci 1990-2004/Sep W2	(c) 2004 Inst for Sci Info
File	99: Wilson Appl. Sci & Tech Abs 1983-2004/Aug	(c) 2004 The HW Wilson Co.
File	95: TEME-Technology & Management 1989-2004/Jun W1	(c) 2004 FIZ TECHNIK

22/5/2 (Item 1 from file: 202)  
DIALOG(R)File 202:Info. Sci. & Tech. Abs.  
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2800798

**Bibliography formatting software: an update .**

Author(s): Stigleman, S

Database vol. 16, no. 1, pages 24-37

Publication Date: Feb 1993

ISSN: 0162-4105

Language: English

Document Type: Journal Article

Record Type: Abstract

Journal Announcement: 2800

This article provides an **update** on bibliography formatting software on the market, noting the currently available 52 programs. The author also reports on what has changed in the 43 programs that were available in 1992. Some features appearing in increased numbers of programs are studied, including detection of **duplicate records**, moving or copying blocks, searching and **replacing** call number sorting, glossaries for frequently entered text, pop-up field contents, and dictionaries of journal abbreviations. Importing records obtained from online or CD-ROM **databases** is seen as a major driving force in the development of bibliographic software.

Descriptors: Bibliographic systems; Bibliographies; Citations; Computer programs

Classification Codes and Description: 5.06 (Software and Programming); 6.02 (Bibliographic Search Services, **Databases**)

Main Heading: Information Processing and Control; Information Systems and Applications

22/5/5 (Item 1 from file: 233)  
DIALOG(R) File 233:Internet & Personal Comp. Abs.  
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00604110 00IT06-005

**Ovid launches new version of search-and-retrieval software**

Information Today , June 1, 2000 , v17 n6 p74-75, 2 Page(s)

ISSN: 8755-6286

Company Name: Ovid Technologies

URL: <http://www.ovid.com>

Product Name: Ovid 4.1.0

Languages: English

Document Type: Product Announcement

Geographic Location: United States

Announces that Ovid Technologies, Inc. of New York, NY (800) will release version 4.1.0 of its search-and-retrieval software. Says that the Multifile and Deduping features allow users to **combine** multiple Ovid **databases** , search them simultaneously, and automatically **remove duplicate records** . Notes that enhancements to its WebLinks technology allow sites to define and customize links from Ovid records to non-Ovid, Web-based resources. Details the capabilities of the Multifile and Deduping features, and the changes to WebLinks customization options. Mentions that Ovid is developing an OpenLinks service for creating links from its bibliographic **database** records to specific journal articles on publisher Web sites. Highlights nine other new features, from an option to delete searches to obtaining a history of the full-text documents accessed. (amg)

Descriptors: Online Information; Software Tools; **Database** ; Product Development

Identifiers: Ovid 4.1.0; Ovid Technologies



27/5/10 (Item 1 from file: 202)  
DIALOG(R) File 202:Info. Sci. & Tech. Abs.  
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1701204

Automated matching and amalgamation of marc records in the dobis database

Author(s): Mouland, P; Webber, R  
Corporate Source: Library Systems Centre, National Library of Canada  
Canadian Journal of Information Science vol. 6, pages 57-65  
Publication Date: June 1981  
ISSN: 1195-096X  
Language: English  
Document Type: Journal Article  
Record Type: Abstract  
Journal Announcement: 1700

This paper outlines the techniques used at the national library of canada for records loaded off-line to achieve the objectives that there be a single bibliographic record for each unique work and that any changes to these records improve overall quality of the **database**. The authors note the criteria used to identify **duplicate records** and describe the process of deciding whether to **replace** a record completely or to perform record amalgamation. The amalgamation process is outlined, and features of the system which allow the on-line cataloguer to protect data elements from off-line modification are explained

Classification Codes and Description: 6.02 (Bibliographic Search Services, **Databases** ); 2.01 (Definitions, Theoretical Considerations  
Main Heading: Information Systems and Applications; Research Methods

27/5/11 (Item 1 from file: 2)

DIALOG(R) File 2:INSPEC

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6576736 INSPEC Abstract Number: C2000-06-6160Z-008

**Title: Cleansing data for mining and warehousing**

Author(s): Mong Li Lee; Hongjun Lu; Tok Wang Ling; Yee Teng Ko

Author Affiliation: Sch. of Comput., Nat. Univ. of Singapore, Singapore

Conference Title: Database and Expert Systems Applications. 10th International Conference, DEXA'99 (Lecture Notes in Computer Science Vol.1677) p.751-60

Editor(s): Bench-Capon, T.; Soda, G.; Tjoa, A.M.

Publisher: Springer-Verlag, Berlin, Germany

Publication Date: 1999 Country of Publication: Germany xviii+1105 pp.

ISBN: 3 540 66448 3 Material Identity Number: XX-1999-02591

Conference Title: Proceedings of DEXA'99: 10th International Conference and Workshop on Database and Expert Systems Applications

Conference Date: 30 Aug.-3 Sept. 1999 Conference Location: Florence, Italy

Language: English Document Type: Conference Paper (PA)

Treatment: Theoretical (T)

Abstract: Given the rapid growth of data, it is important to extract, mine and discover useful information from **databases** and data warehouses. The process of data cleansing is crucial because of the "garbage in, garbage out" principle. "Dirty" data files are prevalent because of incorrect or missing data values, inconsistent value naming conventions, and incomplete information. Hence, we may have multiple records referring to the same real-world entity. We examine the problem of detecting and removing duplicating records. We present several efficient techniques to pre-process the records before sorting them so that potentially **matching records** will be brought to a close neighbourhood. Based on these techniques, we implement a data cleansing system which can detect and **remove more duplicate records** than existing methods. (7 Refs)

Subfile: C

Descriptors: data integrity; data mining; data warehouses; **database theory**

Identifiers: data mining; information discovery; data warehouses; data cleansing; data inconsistency; value naming conventions; missing data values; incomplete information; record pre-processing; **duplicate record removal**

Class Codes: C6160Z (Other DBMS); C4250 (Database theory); C6130 (Data handling techniques)

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27/5/16 (Item 6 from file: 2)  
DIALOG(R) File 2:INSPEC  
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5592775 INSPEC Abstract Number: C9707-6130D-004

**Title:** Duplicate document **detection**

**Author(s):** Spitz, A.L.

**Author Affiliation:** Daimler Benz Res. & Technol. Center, Palo Alto, CA, USA

**Journal:** Proceedings of the SPIE - The International Society for Optical Engineering Conference **Title:** Proc. SPIE - Int. Soc. Opt. Eng. (USA)

vol.3027 p.88-94

**Publisher:** SPIE-Int. Soc. Opt. Eng,

**Publication Date:** 1997 **Country of Publication:** USA

**CODEN:** PSISDG **ISSN:** 0277-786X

**SICI:** 0277-786X(1997)3027L:88:DDD;1-U

**Material Identity Number:** C574-97101

**U.S. Copyright Clearance Center Code:** 0 8194 2438 2/97/\$10.00

**Conference Title:** Document Recognition IV

**Conference Sponsor:** SPIE; Soc. Imaging Sci. & Technol

**Conference Date:** 12-13 Feb. 1997 **Conference Location:** San Jose, CA, USA

**Language:** English **Document Type:** Conference Paper (PA); Journal Paper (JP)

**Treatment:** Practical (P)

**Abstract:** In document image filing applications it is important to be able to recognize whether a particular document has already been entered into the system either as an individual document or as an inclusion in another document. Document images could be matched on the basis of layout or contents. However, matching of layout may not be effective when style is strictly controlled. We develop a document "handle" which is stored along with the document image. The handle is simply a character shape coded representation of the image after the figures and tables have been **removed**. Character shape coding is a method of identifying individual character images as members of one of a small number of classes. This process is computationally inexpensive and tolerant of differing generations of photocopying, skew and scanner characteristics. When a new document is entered into the system, its handle is computed and compared against all of the extant handles using a normalized Levenshtein metric. We demonstrate the ability to detect **duplicate documents** comprising single and multiple pages. (6 Refs)

**Subfile:** C

**Descriptors:** document image processing; image coding; image matching; image representation; optical character recognition; visual **databases**

**Identifiers:** **duplicate document detection**; document image filing applications; **document image matching**; document layout; document handle; character shape coded representation; tables; computationally inexpensive; photocopying; skew; scanner; normalized Levenshtein metric

**Class Codes:** C6130D (Document processing techniques); C6160S (Spatial and pictorial databases); C5260B (Computer vision and image processing techniques); C1250 (Pattern recognition)

Copyright 1997, IEE

27/5/19 (Item 9 from file: 2)

DIALOG(R)File 2:INSPEC

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4777738 INSPEC Abstract Number: C9411-6160K-007

**Title: Techniques for indexing large numbers of constraints and rules in a database system**

Author(s): Kumar, A.

Author Affiliation: Graduate Sch. of Manage., Cornell Univ., Ithaca, NY, USA

p.65-71

Editor(s): Tjoa, A.M.; Ramos, I.

Publisher: Springer-Verlag, Wien, Austria

Publication Date: 1992 Country of Publication: Austria xii+546 pp.

ISBN: 3 211 82400 6

Conference Title: Proceedings of DEXA '92. International Conference on Database and Expert Systems Applications

Conference Date: 2-4 Sept. 1992 Conference Location: Valencia, Spain

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

Abstract: Addresses the problem of indexing a large number of rules and constraints in a **database** system. The objective of such indexing is to be able to quickly identify the relevant constraints and rules, rather than search sequentially every **time insertions**, deletions and modifications are made to the **database**. The constraints are represented as SQL queries which must return **null** answers. Each constraint is **parsed** and stored in one or more indexes. Algorithms for index maintenance and constraint retrieval are given. (16 Refs)

Subfile: C

Descriptors: constraint handling; deductive **databases**; indexing; relational **databases**; SQL

Identifiers: indexing techniques; relevant constraints; rules; **database** system; insertions; deletions; modifications; SQL queries; **null** answers; parsing; index maintenance algorithms; constraint retrieval

Class Codes: C6160K (Deductive databases); C6160D (Relational DBMS)

Set	Items	Description
S1	163084	DATABASE? OR DATABANK? OR DB OR DBMS OR RDB OR OODB OR DBS OR DATA() (BASE? OR BANK?)
S2	1144561	RECORD? OR DOCUMENT? OR INVOICE? OR BILL OR BILLS OR RECEIPT?
S3	1648187	DUPLICATE OR IDENTICAL OR DUPLICATES OR SAME OR EQUIVALENT
S4	2716345	REMOVE? OR REPLAC? OR SUBSTITUT? OR SWITCH? OR SWAP?
S5	2724453	DATE OR DATES OR DATESTAMP? OR INDICIA? OR TIMESTAMP? OR - TIME OR CALENDAR?
S6	239544	BLANK? OR NULL OR EMPTY OR VOID?
S7	1302872	MATCH? OR COMPARE? OR EQUAL OR EQUIVALENT?
S8	15609	S2(2N) (S3 OR S7)
S9	992	S1 AND S8
S10	64	S4 AND S9
S11	296	S1 AND S5 AND S6
S12	12638	S5(2N) (INSERT? OR FILL OR FEED OR POPULAT?)
S13	1	S11 AND S12
S14	80	S12(5N)S6
S15	46	(S10 OR S13 OR S14) AND IC=G06F?
S16	36	S15 NOT AD>20010412
S17	36	IDPAT (sorted in duplicate/non-duplicate order)
S18	35	IDPAT (primary/non-duplicate records only)
File 347:JAPIO Nov 1976-2004/May(Updated 040903)		
(c) 2004 JPO & JAPIO		
File 350:Derwent WPIX 1963-2004/UD,UM &UP=200459		
(c) 2004 Thomson Derwent		

18/5/1 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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016135112 \*\*Image available\*\*  
WPI Acc No: 2004-292988/200427  
Related WPI Acc No: 2003-707698  
XRPX Acc No: N04-232577

Multi-copies synchronizing method of database , involves identifying edited and modified records by comparing records of focus copy against records having same identification tag but contained in other copies of database

Patent Assignee: PALMSOURCE INC (PALM-N)  
Inventor: DUGGARAJU R; GOEPPINGER C; JARVINEN B; MCCAWE K  
Number of Countries: 001 Number of Patents: 001  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6711578	B1	20040323	US 2001764524	A	20010117	200427 B

Priority Applications (No Type Date): US 2001764524 A 20010117  
Patent Details:  
Patent No Kind Lan Pg Main IPC Filing Notes  
US 6711578 B1 17 G06F-017/30

Abstract (Basic): US 6711578 B1

NOVELTY - The edited and modified records are identified by comparing records of focus copy against records having same identification tag but contained in other copies of database . The record indicated as deleted is removed and records indicated as modified are modified to all copies of database . The cycle is repeated until all the copies of database is processed as focus copy.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for computer system.

USE - For synchronizing multi-copies of database in network environment including electronic devices like personal digital assistant (PDA), palm top computer e.g. for local area network (LAN), wide area network (WAN), Internet.

ADVANTAGE - Reduces processing time, since any record that is already processed by another focus database is skipped and new database is processed as the focus database . Provides the synchronization of an upwardly increasable number of copies of multiple databases without an attendant exponential increase in the amount of time and resources required.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart explaining method of synchronizing multi-copies of database .

pp; 17 DwgNo 9/10

Title Terms: MULTI; COPY; SYNCHRONISATION; METHOD; DATABASE ; IDENTIFY;  
EDIT; MODIFIED; RECORD; COMPARE; RECORD; FOCUS; COPY; RECORD; IDENTIFY;  
TAG; CONTAIN; COPY; DATABASE

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

18/5/3 (Item 3 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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015250620 \*\*Image available\*\*  
WPI Acc No: 2003-311546/200330  
XRPX Acc No: N03-248004

Duplicate invoices identifying method for electronic payment system,  
involves replacing identical index numbered invoices in single  
invoice and eliminating compared invoices including replaced  
invoices from database

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )  
Inventor: CALKINS W D; DONNELLY R A; MURPHY J M; VANLONE J W  
Number of Countries: 001 Number of Patents: 001  
Patent Family:  
Patent No Kind Date Applicat No Kind Date Week  
US 20020194174 A1 20021219 US 2001832572 A 20010411 200330 B

Priority Applications (No Type Date): US 2001832572 A 20010411  
Patent Details:  
Patent No Kind Lan Pg Main IPC Filing Notes  
US 20020194174 A1 15 G06F-007/00

Abstract (Basic): US 20020194174 A1

NOVELTY - The invoices with same index numbers, loaded in the  
database at different timings are replaced in a single invoice. The  
report corresponding to comparison result of invoices, including  
replaced invoices is generated based on which the invoices judges to  
have compared are eliminated from the database .

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the  
following:

- (1) Evaluated invoiced documents report providing method;
- (2) Possible duplicate invoices packets capturing method;
- (3) Program storage device storing instructions for identifying  
duplicate records ;
- (4) Possible duplicate invoices capturing system; and
- (5) Computer program element for capturing packets of possible  
duplicate invoices .

USE - For identifying duplicate invoices for payment, credit,  
goods services, among several systems such as electronic payment or  
enterprise resource planning (ERP) systems, multiple accounts payable  
(A/P) systems.

ADVANTAGE - From the invoices left after eliminating the compared  
databases , it is easy to identify and take action on duplicate  
invoices prior to payment.

DESCRIPTION OF DRAWING(S) - The figure shows a system diagram of  
the duplicate invoices identifying system.  
pp; 15 DwgNo 1/5

Title Terms: DUPLICATE; INVOICING; IDENTIFY; METHOD; ELECTRONIC; PAY;  
SYSTEM; REPLACE ; IDENTICAL; INDEX; NUMBER; INVOICING; SINGLE; INVOICING  
; ELIMINATE; COMPARE; INVOICING; REPLACE ; INVOICING; DATABASE  
Derwent Class: T01; T05  
International Patent Class (Main): G06F-007/00  
File Segment: EPI

18/5/4 (Item 4 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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015227576 \*\*Image available\*\*  
WPI Acc No: 2003-288489/200328  
XRPX Acc No: N03-229320

Matching information merge and data trees prune method for world wide  
web, involves applying merge document to identified matching  
documents within source documents

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: MYLLYMAKI J P

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020188598	A1	20021212	US 2001834965	A	20010412	200328 B
US 6757678	B2	20040629	US 2001834965	A	20010412	200443

Priority Applications (No Type Date): US 2001834965 A 20010412

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020188598	A1		15	G06F-017/30	
US 6757678	B2			G06F-017/30	

Abstract (Basic): US 20020188598 A1

NOVELTY - Two or more source documents that share a similar data structure are identified. **Matching documents** that relate to the same configurable entity within the two or more source documents are identified. A merge document is applied to the **matching documents** to merge the **matching documents** into a resultant document, and to prune the data tree of the resultant document.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for software program product for merging matching information and pruning data trees.

USE - For world wide web (WWW).

ADVANTAGE - Provides a way of retrieving sets of individual web pages from web sites and locally merging the data. Enables the user to obtain logical tree data structure where redundancies have been **removed**. Enables the user to bypass the built-in restrictions in product **databases** to effectively mine the data for information. Permits comparative analysis of the data.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic view of an operation environment utilizing data trees automated merging and pruning system.

pp; 15 DwgNo 1/8

Title Terms: MATCH; INFORMATION; MERGE; DATA; TREE; PRUNE; METHOD; WORLD;  
WIDE; WEB; APPLY; MERGE; DOCUMENT; IDENTIFY; MATCH; DOCUMENT; SOURCE;  
DOCUMENT

Derwent Class: T01

International Patent Class (Main): G06F-017/30

International Patent Class (Additional): G06F-017/24

File Segment: EPI



18/5/12 (Item 12 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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011565014 \*\*Image available\*\*  
WPI Acc No: 1997-541495/199750  
Related WPI Acc No: 2003-261399  
XRPX Acc No: N97-450829

Census registration report force entry method for birth report, death report, marriage registration - involves using terminal equipment to replace data, acquired from either census registration database or resident recording database and matched with data item input to search key, into suitable data entry

Patent Assignee: HITACHI LTD (HITA )  
Number of Countries: 001 Number of Patents: 001  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 9259183	A	19971003	JP 9669503	A	19960326	199750 B

Priority Applications (No Type Date): JP 9669503 A 19960326

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 9259183	A		7	G06F-017/60	

Abstract (Basic): JP 9259183 A

The method involves acquiring data which matches with data item input to a search key through a terminal equipment (13), by searching a census-registration database (12) based on the search key.

When the data corresponding to the search key are not found in the census-registration database, the data are acquired by searching a resident recording database (15) which stores resident information. The terminal equipment then replaces the acquired data in suitable data entry.

ADVANTAGE - Reduces load of data item input even when there are no data applicable to census-registration database since resident recording database can be searched.

Dwg.1/6

Title Terms: REGISTER; REPORT; FORCE; ENTER; METHOD; BIRTH; REPORT; DEAD; REPORT; REGISTER; TERMINAL; EQUIPMENT; REPLACE; DATA; ACQUIRE; REGISTER; DATABASE; RESIDENCE; RECORD; DATABASE; MATCH; DATA; ITEM; INPUT; SEARCH; KEY; SUIT; DATA; ENTER

Derwent Class: T01

International Patent Class (Main): G06F-017/60

International Patent Class (Additional): G06F-017/30

File Segment: EPI

18/5/16 (Item 16 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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010632613 \*\*Image available\*\*  
WPI Acc No: 1996-129566/199613  
XRPX Acc No: N96-108864

Graphic data updating system for e.g. utility company map data -  
compares update records of graphic data held at sub-station and  
corresponding data held at base station and replaces older data

Patent Assignee: TOKYO GAS CO LTD (TOLG )  
Inventor: ISHIKAWA Y; SATO H; YONEYAMA K  
Number of Countries: 018 Number of Patents: 009  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9604606	A1	19960215	WO 95JP1493	A	19950727	199613	B
JP 8044768	A	19960216	JP 94197531	A	19940729	199617	
JP 8076685	A	19960322	JP 94230450	A	19940831	199622	
JP 8077202	A	19960322	JP 94230451	A	19940831	199622	
EP 722144	A1	19960717	EP 95926508	A	19950727	199633	
			WO 95JP1493	A	19950727		
US 5794258	A	19980811	WO 95JP1493	A	19950727	199839	
			US 96615245	A	19960506		
EP 722144	A4	19971015	EP 95926508	A	19950727	199840	
EP 722144	B1	20011031	EP 95926508	A	19950727	200169	
			WO 95JP1493	A	19950727		
DE 69523553	E	20011206	DE 623553	A	19950727	200203	
			EP 95926508	A	19950727		
			WO 95JP1493	A	19950727		

Priority Applications (No Type Date): JP 94230451 A 19940831; JP 94197531 A  
19940729; JP 94230450 A 19940831

Cited Patents: 03Jnl.Ref; JP 5108729; JP 5233770; JP 6019969; JP 6325139;  
EP 511010

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9604606	A1	J	63	G06F-017/30	
Designated States (National): US					
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE					
JP 8044768	A		12	G06F-017/30	
JP 8076685	A		14	G09B-029/00	
JP 8077202	A		13	G06F-017/30	
EP 722144	A1	E	43	G06F-017/30	Based on patent WO 9604606
Designated States (Regional): DE FR GB					
US 5794258	A			G06T-001/00	Based on patent WO 9604606
EP 722144	A4			G06F-017/30	
EP 722144	B1	E		G06F-017/30	Based on patent WO 9604606
Designated States (Regional): DE FR GB					
DE 69523553	E			G06F-017/30	Based on patent EP 722144 Based on patent WO 9604606

Abstract (Basic): WO 9604606 A

Graphic data is read from optical disc (19) at a sub-station (3-1),  
and after designation of a search area the data is sent to the base  
station (1) by eg. modem (29, 33). At the base station, graphic data  
including the designated search area is extracted by the host computer  
(5) from a **database** (9).

The data and time of updating of both the extracted data (10) and  
the data received from the sub-station is then checked. When the time  
of the last update of the data extracted at the base station is more  
recent than that of the received data, the newer extracted graphic data  
is transmitted to the sub-station.

USE - For providing sub-stations, portable computers etc. with the  
newest available data, in a system where centrally stored data is  
subject to regular updating.

Dwg.1/48

Title Terms: GRAPHIC; DATA; UPDATE; SYSTEM; UTILISE; COMPANY; MAP; DATA;  
COMPARE; UPDATE; RECORD; GRAPHIC; DATA; HELD; SUB; STATION; CORRESPOND;  
DATA; HELD; BASE; STATION; **REPLACE** ; DATA  
Derwent Class: P85; T01  
International Patent Class (Main): **G06F-017/30** ; G06T-001/00; G09B-029/00  
International Patent Class (Additional): G01C-021/20; **G06F-013/00** ;  
**G06F-015/00** ; **G06F-017/50** ; G08G-001/09; G08G-001/0969  
File Segment: EPI; EngPI

18/5/24 (Item 24 from file: 347)  
DIALOG(R) File 347:JAPIO  
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07321269 \*\*Image available\*\*  
METHOD FOR GENERATING LIST OF RETRIEVAL RESULT OF RELATIONAL **DATABASE** ,  
RETRIEVAL DEVICE FOR RELATIONAL **DATABASE** , AND RECORDING MEDIUM

PUB. NO.: 2002-189756 [JP 2002189756 A]  
PUBLISHED: July 05, 2002 (20020705)  
INVENTOR(s): MAEDA KOJI  
FUJIYAMA EIKO  
APPLICANT(s): FUJITSU LTD  
APPL. NO.: 2000-389112 [JP 2000389112]  
FILED: December 21, 2000 (20001221)  
INTL CLASS: **G06F-017/30**

#### ABSTRACT

PROBLEM TO BE SOLVED: To provide a system which is easy to read through without any awareness of hierarchy as a system which manages a series of volumes of materials (book, etc.), through a relational **database ( RDB )**.

SOLUTION: An identification key item is specified among a plurality of items (field) included in the **RDB** and when retrieval from the **RDB** is performed, **records** having **matching** data by items as to the previously specified identification key item are detected from extracted records to extract a plurality of records as ones in the same series and generate series information, which is entered into a list of retrieval results while generated by having records **replaced** with a plurality of records included in the series.

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18/5/30 (Item 30 from file: 347)  
DIALOG(R)File 347:JAPIO  
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05704835 \*\*Image available\*\*  
DATABASE UPDATING METHOD

PUB. NO.: 09-319635 [JP 9319635 A]  
PUBLISHED: December 12, 1997 (19971212)  
INVENTOR(s): WATANABE SHINICHI  
APPLICANT(s): MATSUSHITA GRAPHIC COMMUN SYST INC [330729] (A Japanese  
Company or Corporation), JP (Japan)  
APPL. NO.: 08-136233 [JP 96136233]  
FILED: May 30, 1996 (19960530)  
INTL CLASS: [6] G06F-012/00 ; G06F-017/30  
JAPIO CLASS: 45.2 (INFORMATION PROCESSING -- Memory Units); 45.4  
(INFORMATION PROCESSING -- Computer Applications)

#### ABSTRACT

PROBLEM TO BE SOLVED: To accelerate batch processing or update processing itself of records in a **database** by performing margin processing to the received update **records** having the **same** ID, and updating the records registered in the **database** while using the records after the margin processing.

SOLUTION: A batch file managing part 20 is activated and it is checked whether the **record** of the **same** ID as a record becoming the object of update processing is defined as the object of new registration or not (exists in an update file 26 or not). When the **record** of the **same** ID exists in the update batch file 26, the batch file managing part 20 performs the margin processing for the unit of a field to the update record and the update record existent in the update batch file 26 through an update batch file access part 25, generates the new update record, deletes the existent update record and **replaces** the generated new update record with the deleted update record.

Set	Items	Description
S1	163084	DATABASE? OR DATABANK? OR DB OR DBMS OR RDB OR OODB OR DBS OR DATA() (BASE? OR BANK?)
S2	1144561	RECORD? OR DOCUMENT? OR INVOICE? OR BILL OR BILLS OR RECEIPT?
S3	1648187	DUPLICATE OR IDENTICAL OR DUPLICATES OR SAME OR EQUIVALENT
S4	2716345	REMOVE? OR REPLAC? OR SUBSTITUT? OR SWITCH? OR SWAP?
S5	2724453	DATE OR DATES OR DATESTAMP? OR INDICIA? OR TIMESTAMP? OR - TIME OR CALENDAR?
S6	239544	BLANK? OR NULL OR EMPTY OR VOID?
S7	1302872	MATCH? OR COMPARE? OR EQUAL OR EQUIVALENT?
S8	15609	S2(2N) (S3 OR S7)
S9	992	S1 AND S8
S10	64	S4 AND S9
S11	296	S1 AND S5 AND S6
S12	12638	S5(2N) (INSERT? OR FILL OR FEED OR POPULAT?)
S13	1	S11 AND S12
S14	80	S12(5N)S6
S15	46	(S10 OR S13 OR S14) AND IC=G06F?
S16	36	S15 NOT AD>20010412
S17	36	IDPAT (sorted in duplicate/non-duplicate order)
S18	35	IDPAT (primary/non-duplicate records only)
S19	630781	BLEND OR BLENDS OR BLENDING OR MERGE? OR MERGING OR COMBINE OR COMBINES OR COMBINING OR APPEND? OR MIX OR UPDAT? OR UP()- (DATE OR DATING OR DATES)
S20	14	S10 AND S19
S21	1	S20 NOT S15
S22	756	S8 AND S19
S23	147	S1 AND S22
S24	131	S23 AND IC=G06F?
S25	118	S24 NOT (S10 OR S13 OR S14)
S26	9	S25 AND IC=G06F-007?

File 347:JAPIO Nov 1976-2004/May(Updated 040903)  
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File 350:Derwent WPIX 1963-2004/UD,UM &UP=200459  
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26/5/3 (Item 3 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
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015608507 \*\*Image available\*\*  
WPI Acc No: 2003-670664/200363  
XRPX Acc No: N03-535495

Unique object record identification using rule analyzer system for  
healthcare organization, involves determining efficiency of exact match  
and probabilistic search rules, to accordingly adjust rules in descending  
order

Patent Assignee: ECLIPSYS CORP (ECLI-N)

Inventor: TIFFT W W

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030120652	A1	20030626	US 99160717	P	19991019	200363 B
			US 2000692433	A	20001019	
			US 2003349304	A	20030121	

Priority Applications (No Type Date): US 99160717 P 19991019; US 2000692433  
A 20001019; US 2003349304 A 20030121

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030120652	A1	19	G06F-007/00	Provisional application	US 99160717

Div ex application US 2000692433

Abstract (Basic): US 20030120652 A1

NOVELTY - The user defined probabilistic search rules are executed  
to search a unique object record in a **database**, if exact match search  
rules do not retrieve **identical** object **records**. The user selected  
object record is **updated** with new attributes in real-time. The  
efficiency of exact match and probabilistic search rules are  
determined, to accordingly adjust the rules in descending order.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the  
following:

- (1) unique object record identifying system;
- (2) rules analysis method; and
- (3) rules analyzer system.

USE - For identifying an object record, using a rules analyzer  
system (claimed) in healthcare organization.

ADVANTAGE - Efficiently evaluates the efficiency and reordering of  
exact match and probabilistic search rules, thus maintaining a set or  
rules to locate the desired record in an efficient manner.

DESCRIPTION OF DRAWING(S) - The figure shows the display screen of  
a rule generator.

pp; 19 DwgNo 2/9

Title Terms: UNIQUE; OBJECT; RECORD; IDENTIFY; RULE; ANALYSE; SYSTEM;  
ORGANISE; DETERMINE; EFFICIENCY; EXACT; MATCH; PROBABILITY; SEARCH; RULE;  
ACCORD; ADJUST; RULE; DESCEND; ORDER

Derwent Class: T01

International Patent Class (Main): G06F-007/00

File Segment: EPI

26/5/8 (Item 8 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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010800295 \*\*Image available\*\*  
WPI Acc No: 1996-297248/199630  
XRPX Acc No: N96-250116

**Data sorting system - has merge part which sequentially outputs sorted record to work-file without allowing record to participate again in sorting process**

Patent Assignee: NEC CORP (NIDE )  
Number of Countries: 001 Number of Patents: 001  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 8129478	A	19960521	JP 94290451	A	19941031	199630 B

Priority Applications (No Type Date): JP 94290451 A 19941031

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 8129478	A		21	G06F-007/24	

Abstract (Basic): JP 8129478 A

The sorting system has a management table (10) which sets an equivalent key flag for each record of the **database** . At the time of sorting, the records are read into a memory (1) sequentially. When a record is sorted out, a part (2) sets its equivalent key flag.

A **merge** part (4) obtains the **record** whose **equivalent** key flag is set and is output sequentially into a work file (7). Along with the record in the work-file, its equivalent key flag information is added by a pre sorting part. The sorting process is continued for the rest of the records in the string.

ADVANTAGE - Reduces number of comparison process for sorting.  
Reduces sorting time.

Dwg.1/11

Title Terms: DATA; SORT; SYSTEM; **MERGE** ; PART; SEQUENCE; OUTPUT; SORT;  
RECORD; WORK; FILE; ALLOW; RECORD; PARTICIPATING; SORT; PROCESS

Derwent Class: T01

International Patent Class (Main): **G06F-007/24**

File Segment: EPI



26/5/9 (Item 9 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
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010654050 \*\*Image available\*\*  
WPI Acc No: 1996-151004/199615  
Related WPI Acc No: 1997-052579; 1998-145142  
XRPX Acc No: N96-126963

Merging databases of records in parallel and redundancy checking of  
mailing list - comparing sorted records based on first key to each other,  
identifying duplicate records if less than number of records in  
database, storing identity, repeating sorting for second key and  
subjecting union of keys to transitive closure

Patent Assignee: STOLFO S J (STOL-I)  
Inventor: HERNANDEZ M A; STOLFO S J  
Number of Countries: 001 Number of Patents: 001  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5497486	A	19960305	US 94213795	A	19940315	199615 B

Priority Applications (No Type Date): US 94213795 A 19940315

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 5497486	A	22	G06F-007/06	

Abstract (Basic): US 5497486 A

The method involves computing a first and second key respectively for each record in each **database** by extracting a portion of a first and second field. The records in each **database** are parallel **merge** sorted using the first and second keys respectively.

The method also involves comparing to each other, on a first and second group of processors, a predetermined number of sequential records sorted according to the first and second key respectively to determine if one or more of the **records match**. The identifiers for any **matching records** of both keys are stored.

A union of the stored identifiers is created and subjected to transitive closure, where, in each group of processors for each **database**, N is a number of records, P is a number of processors. Each processor p, 1 at most p at most P, is able to store M+w records, where w is a size of a **merge** phase window and M is a blocking factor.

In each group of processor for each **database** P is less than N, MP is less than N and  $r_i$  represents record i in a cluster, 0 at most i at most MP-1. Each comparing step involves dividing the sorted **database** into N/MP clusters, processing each of the N/MP clusters in turn by providing each processor p with records  $r((p-1)M, \dots, rpM-1, \dots, rpM+w-2)$ , for 1 at most p at most P. The **matching records** are searched independently at each processor using a window of the size w. Finally, the processing step is repeated for a next cluster of records.

ADVANTAGE - Data clustering reduces complexity to linear time making multiple runs followed by transitive closure feasible and efficient. Large **databases** are accommodated which uses parallel and distributed computing to achieve efficient performance with acceptable cost.

Dwg.7/8

Title Terms: **MERGE**; RECORD; PARALLEL; REDUNDANT; CHECK; MAIL; LIST;  
COMPARE; SORT; RECORD; BASED; FIRST; KEY; IDENTIFY; DUPLICATE; RECORD;  
LESS; NUMBER; RECORD; **DATABASE**; STORAGE; IDENTIFY; REPEAT; SORT; SECOND  
; KEY; SUBJECT; UNION; KEY; CLOSURE

Derwent Class: T01

International Patent Class (Main): G06F-007/06

International Patent Class (Additional): G06F-007/14 ; G06F-007/20

File Segment: EPI